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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
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In the Matter of)
)
Inquiry Concerning the Deployment of)
Advanced Telecommunications Capability)
to All Americans in a Reasonable and)
Timely Fashion, and Possible Steps to)
Accelerate Such Deployment Pursuant to)
Section 706 of the Telecommunications)
Act of 1996)

CC Docket No. 98-146

COMMENTS OF COX COMMUNICATIONS, INC.

COX COMMUNICATIONS, INC.

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Summary

In these comments, Cox provides the Commission with the information and data requested concerning its extensive network upgrades, infrastructure deployment and competitive offerings. Cox also urges the Commission to focus the proceeding on the development of broadband infrastructure that creates the capability for offering advanced telecommunications services.

As of today, Cox has already spent about \$5 billion on the development of its hybrid fiber coaxial network. During the next four years, Cox's planned capital investment in network infrastructure will average more than one billion dollars annually. Fifty-five percent of all Cox systems (including newly acquired TCA, Media General, AT&T, and Gannett systems) have been upgraded for two-way transmission, and seventy-four percent will be upgraded for two-way transmission by the end of 2000.

Cox offers a wide range of advanced services, including conventional and advanced digital cable television, enhanced telephone service, high-speed Internet access via Cox@Home, and commercial voice and data service applications via Cox Business Services. The accelerating deployment of these advanced services is evidence of Cox's continued efforts to construct an interactive, flexible broadband network. In the fourth quarter of 1999 alone, Cox added 46,444 high-speed data subscribers for a total of 187,000 @Home subscribers.

Moreover, Cox has added an average of over 4,800 new digital television subscribers per week in the fourth quarter of 1999, and served a total of over 265,000 subscribers at the close of 1999. On the telephone side, Cox has added over 20,000 residential telephone subscribers in the last quarter of 1999, with a total of more than 122,000 telephone subscribers and more than 165,000 access lines on March 1, 2000.

For its business customers, Cox has begun to expand data and telephony service offerings to small and medium-sized businesses by leveraging its existing upgraded networks, increasing corporate and field resources and initiating an intensive marketing and brand awareness campaign. As for the non-profit sector, Cox now provides more than 3,400 public and private schools in its service areas with free monthly cable service and learning guides.

To encourage similar and continued investments in broadband infrastructure, Cox urges the Commission maintain its current de-regulatory regime for advanced telecommunications capability. Cox believes that this non-interventionist approach has proven highly successful and has been the driving force behind the flourishing broadband marketplace.

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COMMENTS OF COX COMMUNICATIONS, INC.

Cox Communications, Inc. (“Cox”), by its attorneys, hereby submits its comments in response to the *Section 706 Inquiry* in the above-referenced proceeding.¹ Cox offers these comments to demonstrate that advanced telecommunications capability is being deployed to Americans at a rapid pace. By way of example, Cox describes its own infrastructure deployment and competitive offerings of advanced voice, video and data services to *all* classes of customers within Cox’s geographic cable television service areas.

Consistent with the purpose of Section 706, Cox believes that the Commission’s focus should be on the deployment of the network infrastructure, whether wireline, wireless, or other, that creates the “capability” for providing the “high-quality voice, data, graphics and video

¹ Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, *Notice of Inquiry*, CC Docket No. 98-146, FCC 00-57, (rel. Feb. 18, 2000) (“*Notice*”).

telecommunications using any technology” identified in the statute.² Only through this understanding of advanced telecommunications capability can the pace of its deployment be accurately assessed.

Facilities-based providers like Cox are spending literally hundreds of billions of dollars to build out and upgrade existing networks to reach more consumers. Based on Cox’s own infrastructure improvements, as well as the current and planned network deployment of other facilities-based service providers, it is obvious that development of two-way broadband infrastructure capable of supporting 200 kbps transmission in either direction has occurred and is occurring at an extraordinary rate of speed.

To ensure that deployment continues at this rapid pace, the Commission is quite correct to embrace regulatory restraint. This approach provides the best incentive for the development of advanced telecommunications capability.

I. “ADVANCED TELECOMMUNICATIONS CAPABILITY” IS NETWORK INFRASTRUCTURE

The *Notice* requests comment on whether the Commission should re-evaluate its definition of “advanced telecommunications capability.”³ Cox believes that the Commission’s earlier choice of a bandwidth speed of 200 kbps as a performance floor is appropriate. Because this bit rate is well in excess of what most subscribers use today, but well below the highest available transmission speeds, the Commission’s definition permits a wide range of speed and

² Pub. L. No. 104-104, Title VII, § 706(c), 110 Stat. 153 (1996) (emphasis added).

³ *Notice* at ¶ 8.

choice. The Commission should continue to allow the marketplace to meet current and reasonably foreseeable consumer needs under the present framework.

Although the bandwidth or “throughput” aspect of the Commission’s definition of advanced telecommunications capability is correct, Cox suggests that the focus of the discussion should be redirected. The first *Section 706 Report* devotes unnecessary attention to the particular services and consumer electronic and consumer premises equipment (“CPE”) being deployed in the marketplace. To determine, for instance, whether advanced service capability was being deployed in a “reasonable and timely” manner, the first *Section 706 Report* states that:

As comparable services, we have chosen the original telephone in the 1870s, over-the-air black-and-white television in the late 1940s, color television in the 1950s, and cellular service in the mid-1980s.⁴

This “apples to oranges” comparison does not accurately capture Congress’ statutory directive to the Commission. Rather than address advanced telecommunications capability as if it were simply particular “services” or particular CPE, and then measure consumer usage, the Commission should focus on the deployment of network infrastructure. Section 706 requires the Commission to “encourage the deployment on a reasonable and timely basis of advanced telecommunications *capability* to all Americans . . . by utilizing, in a manner consistent with the public interest, . . . measures that promote competition in the local telecommunications market,

⁴ Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, *Report*, 14 FCC Rcd 2398, 2410-11 (1999) (“*Section 706 Report*”).

or other regulating methods that *remove barriers to infrastructure investment.*”⁵ The language of the statute thus directs the Commission to ensure that underlying broadband *infrastructure* is receiving investment and being deployed. Congress appropriately realized that, as long as sufficient infrastructure is being constructed in a reasonable and timely fashion, American consumers will have access to a wide range of advanced services and CPE.

Indeed, in the first *Section 706 Report*, the Commission recognized that broadband service does not include content, but consists only of making available a communications path on which content may be transmitted and received. In addition, whether a capability is broadband does not depend on the use of any particular technology or the nature of the provider.⁶ Inexplicably, however, after characterizing “broadband telecommunications capability” in this way, the initial *Section 706 Report* goes on to compare the deployment of broadband to the deployment of color televisions and telephones to make its “reasonable and timely” determination. This cannot be an accurate measure of advanced telecommunications capability deployment as envisioned by the Act. Given the statute’s direction, the inquiry should focus solely on the pace of network infrastructure deployment. Once the proper measurement is applied, the Commission can obtain a more accurate picture of the rate of deployment of two-way broadband networks — a rate which, Cox maintains, is phenomenally faster than the historical deployment of other single-service networks.

⁵ Pub. L. No. 104-104, Title VII, § 706(c), 110 Stat. 153 (1996) (emphasis added).

⁶ *Section 706 Report*, 14 FCC Rcd at 2407.

II. ADVANCED TELECOMMUNICATIONS CAPABILITY IS BEING DEPLOYED TO ALL AMERICANS BY CABLE BROADBAND INFRASTRUCTURE

The *Notice* requests information on whether advanced telecommunications capability is being deployed to “all Americans.” In particular, the Commission requests information on the “actual deployment of both backbone and last mile facilities,” and “whether significant investment [is] being made in broadband infrastructure.”⁷

Since the passage of the 1996 Act, Cox has been a leader in infrastructure deployment. Through its cable network upgrades and buildout, Cox has been at the forefront of ensuring that its customers have access to a robust, two-way broadband “pipe.” Cox’s far-reaching broadband cable network has enabled it to offer its customers an array of advanced services.⁸ Moreover, Cox and @Home together have materially added to the capacity and high speed transport and distribution of data content from the Internet through construction of a national network of high capacity fiber and servers.

A key component in the statutory definition of “advanced telecommunications capability” is the deployment of infrastructure that “enables users to originate and receive *high-quality* voice, data, graphics, and video telecommunications using any technology.”⁹ To date, Cox has spent about \$5 billion to lay thousands of miles of redundant fiber optics, install ATM switches, and create integrated network information systems that support billing, collection, database

⁷ *Notice* at ¶ 11.

⁸ Specific information prepared in late 1999 regarding its network and service deployment achievements is attached to these comments, under the title: “*Cox Communications: Now You’re Living.*” The information discussed in this section is drawn primarily from this attachment.

⁹ Pub. L. No. 104-104, Title VII, § 706(c), 110 Stat. 153 (1996) (emphasis added).

management and all other aspects of customer care.¹⁰ These improvements enable Cox to provide the high-quality advanced services, described below, that Congress envisioned when enacting Section 706 of the 1996 Act.

A. Cox's Full-Service Broadband Plant Deployment.

Cox provides video programming services to roughly six million cable households across the country. Most Cox customers are served by large, regionally clustered and technologically sophisticated cable networks.¹¹ These hybrid fiber coax ("HFC") networks use fiber from the cable headend to nodes located in neighborhoods. Each node serves about 800 households, which are connected to the node by coaxial cable. Cox's HFC networks employ a unique "ring-in-ring" configuration between the headend and the neighborhood node that ensures uninterrupted provision of two-way digital voice, video and high-speed data services with superior reliability to the customer.¹²

¹⁰ Cox has a superior track record in customer care. Cox's digital broadband network is 99.986 percent reliable, and it provides the best customer service in the cable industry. Moreover, Cox provides its customers with convenience and flexibility, offering services that include customer Web account access.

¹¹ Cox's customers are located in some of the highest-growth areas of the country, including Orange County and San Diego, California, Phoenix, Arizona, Las Vegas, Nevada, and Hampton Roads, Virginia.

¹² In a "ring-in-ring" architecture, a primary fiber optic ring covers a large geographical area, such as a city or community, and carries signals in a circular path around the ring. Groups of secondary rings connected to the primary ring serve smaller areas. Finally, grouped around each secondary ring are fiber optic "nodes." The nodes convert optical signals back into a standard broadcast form for distribution along coaxial lines to the consumer. The optical rings ensure uninterrupted service to the customer. For example, in the event of a loss of signal flow from one direction around the primary ring, a sensor located at each secondary ring will detect this loss, automatically switch to an alternative route and then send a high priority maintenance signal back to the system office.

Cox has invested substantial sums to provide advanced broadband capabilities to its customers. The costs of upgrading one-way, 350-550 MHz analog cable plant to two-way active, 750 MHz capability averages roughly \$220 per home passed. Cox passes 10 million homes. Fifty-five percent of all Cox systems (including newly acquired TCA, Media General, AT&T, and Gannett systems) have been upgraded for two-way transmission. Seventy-four percent will be upgraded for two-way transmission by the end of 2000, and eighty-four percent by the end of 2001. Today, fifty-five percent of Cox plant is upgraded to 750 MHz. By the end of 2000, sixty-eight percent, and by the end of 2001 eighty percent will be upgraded to 750 MHz.

For digital television and data services, over ninety-five percent of homes passed by Cox systems will be ready to receive these services by 2004. Over fifty percent of Cox homes passed will be digital telephony-ready by 2004. The capital expenditures to upgrade plant for telephone service include a variable total cost of roughly \$645 per line, assuming twenty-five percent penetration of homes passed. Cox's telephony service is a true "life-line" telephony offering, that, unlike battery back-up or IP telephony, will remain in service during extended power outages.¹³

¹³ Problems Cox is experiencing in some localities regarding the installation of essential power supply cabinets in the public rights-of-way are discussed at length in Cox's Comments filed in the Commission's Competitive Networks Inquiry. See In the Matter of Promotion of Competitive Networks in Local Telecommunications Markets, Wireless Communications Association International, Inc. Petition for Rulemaking to Amend Section 1.4000 of the Commission's Rules to Preempt Restrictions on Subscriber Premises Reception or Transmission Antennas Designed to Provide Fixed Wireless Services, Cellular Telecommunications Industry Association Petition for Rule Making and Amendment of the Commission's Rules to Preempt State and Local Imposition of Discriminatory and/or Excessive Taxes and Assessments, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, *Notice of Proposed Rulemaking and Notice of Inquiry in WT Docket No. 99-217, and Third continued...*

B. Leveraging the Broadband Pipe

Today Cox offers an array of advanced services, including: (1) conventional and advanced digital cable television under the Cox Cable brand; (2) local, enhanced and long distance telephone service under the Cox Digital Telephone brand; (3) high-speed Internet access via Cox@Home; and (4) commercial voice and data service applications via Cox Business Services.¹⁴ The accelerating deployment of these advanced services is evidence of Cox's rapid progress and continued efforts to construct an interactive, flexible broadband network.

1. Residential Services.

a. High-speed Internet data service

Cox@Home provides subscribers with high-speed Internet access by using its hybrid fiber-coaxial cable lines and the Excite@Home network to connect to the Internet. This high bandwidth solution takes advantage of the capacity of Cox's cable lines, and the network is being engineered to consistently provide upstream data transfer speeds of approximately 256 kilobits per second and downstream speeds of approximately three megabits per second.

Cox added 46,444 high-speed data subscribers in the fourth quarter of 1999, for a total of 187,000 @Home subscribers. It is expected that by the end of 2000 Cox will market this high speed Internet service to two-thirds of its customer base.

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Further Notice of Proposed Rulemaking, CC Docket No. 96-98, WT Docket No. 99-217, CC Docket No. 96-98, FCC 99-141 (rel. July 7, 1999).

¹⁴ Cox employs over 150 locally-based trainers in the markets it serves, with a 120:1 employee/trainer ratio. Three percent of Cox's total payroll expense is dedicated to training,
continued...

b. New digital television services

Cox now provides digital cable television in thirteen markets nationwide. It added an average of over 4,800 new digital subscribers per week in the fourth quarter of 1999, and served a total of over 265,000 subscribers at the close of 1999. It is anticipated that by year's end 2000 Cox will market digital television service to over two-thirds of its customer base.

c. Digital lifeline telephone service

Cox customers in six markets now have a digital, reliable alternative for residential phone service at prices substantially lower than those offered by incumbent telephone companies. Cox added over 20,000 residential telephony subscribers in the last quarter of 1999. Cox had more than 122,000 telephone subscribers and more than 165,000 access lines on March 1, 2000, and Cox is now a carrier of last resort in Southern California.

2. *Commercial Broadband Services.*

The *Notice* also requests data on the deployment of advanced telecommunications capability to large, medium and small-sized businesses.¹⁵ Cox intends to provide the capability for comprehensive voice, video and data communications services to the business community in its markets.

To date, Cox has focused much of its commercial broadband efforts on large businesses. By the second quarter of 1999, Cox had connected 938 large buildings to its fiber network. Cox

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with \$0.81 of every training dollar spent on frontline employees. Moreover, Cox provides over 200 courses via Intranet-based training.

¹⁵ *Notice* at ¶¶ 16-17.

has begun to expand data and telephony service offerings to small and medium-sized businesses by leveraging its *existing* upgraded networks, increasing corporate and field resources and initiating an intensive marketing and brand awareness campaign.¹⁶ Thus, this effort has a relatively low incremental cost.

3. *Schools program.*

The *Notice* requests information on the degree to which elementary and secondary schools have access to advanced broadband capability. Educational institutions are a cornerstone of Cox's outreach efforts. Cox provides more than 3,400 public and private schools in its service areas with free monthly cable service and learning guides. Where Cox's cable infrastructure is upgraded to offer high-speed Internet access, Cox is producing unique distance learning initiatives through its "Line to Learning" program.¹⁷ Cox also has established Cox Model Technology Schools, where advancements in technology can be employed as teaching tools.

C. **Future Deployment**

In addition to continuing its infrastructure upgrades, Cox will focus this year on the development of next-generation advanced services, including Internet over the TV (interactive television) and video on demand. Technology trials and consumer demand testing of these

¹⁶ Cox has over 2,000 Cox@Work accounts, the majority of which are small office or home office customers.

¹⁷ Cox's "Line to Learning" program is the latest step in Cox's ongoing commitment to enhancing educational tools. Line to Learning utilizes Cox's high-capacity networks to provide useful content and curriculum via high-speed Internet access. As an extension of its Cox@Home service, Line to Learning takes advantage of Cox's superior digital fiber-optic network, allowing more data to be transferred at downstream rates that are up to 100 times greater than rates achievable over standard, 28.8 kilobit per second telephone modems.

services are underway. Other interactive services, including e-mail, Web browsing, instant messaging and enhanced television, will soon be available to Cox customers over their television sets.

During the next four years, Cox's planned capital investment in network infrastructure will average more than one billion dollars annually. Cox believes that its aggregate capital spending of more than nine billion dollars described in these comments¹⁸ fulfills the key objective of the Telecommunications Act of 1996, as stated in the conference report, "to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans"¹⁹

III. THE PACE OF DEPLOYMENT IS REASONABLE AND TIMELY, AND THE COMMISSION'S "HANDS OFF" POLICY IS EXACTLY CORRECT

Chairman Kennard has called for the deployment of broadband to be fast, ubiquitous, competitive and open.²⁰ Cox is up to the Chairman's challenge. So is the rest of the marketplace.

A. Fast, Competitive Deployment Is Occurring at an Unprecedented Pace

In its initial *Section 706 Report*, the Commission recognized that, while a nascent market, residential broadband deployment was occurring in a reasonable and timely fashion and that the

¹⁸ See *supra* page 5 (stating that Cox has already spent about \$5 billion on network development).

¹⁹ H.R. CONF. REP. NO. 104-458, at 1 (1996).

²⁰ "Consumer Choice Through Competition," an Address by Chairman William E. Kennard to the National Association of Telecommunications Officers and Advisors, September 17, 1999.

preconditions for monopoly appeared absent.²¹ Consequently, the Commission adopted a “hands-off” approach of regulatory restraint, coupled with vigilant monitoring, as a reasonable course of action. The Commission’s conclusions were based primarily on the large number of alternative methods of high bandwidth Internet access. The first *Section 706 Report* specifically stated that existing broadband digital subscriber line (“DSL”) and cable modem services will soon be joined by satellite, electric utility, 3rd generation PCS, MMDS, LMDS and over-the-air broadcasters, as providers of broadband Internet access.²² It also found that broadband deployment to large and medium-sized business customers is reasonable and timely.²³

A survey of the marketplace at the dawn of the new century demonstrates that the only thing that has changed since release of the first *Section 706 Report* is that the pace of new entry and network upgrades has increased. The Commission itself has recognized repeatedly that the acceleration is – in no small measure – due to the desire of other marketplace participants to compete with the cable industry’s remarkable progress in providing high-speed Internet and data services.²⁴ According to a recent Cable Services Bureau report, the “data . . . indicate that broadband deployment in this country is growing and will likely grow exponentially in the years

²¹ *Section 706 Report*, 14 FCC Rcd. at 2423.

²² *Id.* at 2425-30.

²³ Specifically, the first *Section 706 Report* noted that businesses, “on the whole, either have access to broadband or, according to the best evidence, will have it soon.” *Id.* at 2408-09.

²⁴ See Notice at ¶ 3; “Consumer Choice Through Competition,” an Address by Chairman William E. Kennard at the National Association of Telecommunications Officers and Advisors, September 17, 1999; “Broadband Today,” A Staff Report to Chairman William E. Kennard, from Deborah A. Lathen, Chief of the Cable Services Bureau, at 46 (October 1999) (“Broadband
continued...”

to come. . . . [T]he Commission's policy of restraint on broadband regulation has helped to create a fertile environment for growth."²⁵

Over the past year, there have been announcements from dozens of businesses implementing or planning to implement high bandwidth Internet access services and other advanced services throughout the country.²⁶ Facilities-based service providers like Cox are spending tremendous financial and human resources to build out and upgrade existing networks to reach more consumers. According to one industry report, the "converging Internet, cable TV and telephone industries are spending billions of dollars to make broadband a reality – at an estimated construction cost of \$500 to \$600 a household, whether the broadband connection is through a cable system or telephone line. The effort represents the most extensive and most

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Today"); Remarks by Michael K. Powell before the Federal Communications Bar Association (Chicago Chapter), Chicago, Illinois, June 15, 1999.

²⁵ Broadband Today at 46.

²⁶ See, e.g., TELECOMMUNICATIONS REPORTS, at 29, February 21, 2000 (explaining MCI WorldCom, Inc.'s plans to launch new trials of high-speed Internet access using MMDS technology this summer and to offer broadband fixed-wireless services in more than 100 cities by year-end 2001); Scott Thurm, *McCaw to Fuse Satellite-Phone Systems and Teledesic*, THE WALL STREET JOURNAL, March 2, 2000, at B8; Joe Flint, *Broadcasters Create iBlast to Distribute Content to PCs Via Wireless Technology*, THE WALL STREET JOURNAL, March 8, 2000, at B8; John Borland, *Empowering the Net?*, ABCNEWS.COM, March 9, 2000 (announcing that the German energy conglomerate Veba, working with U.S. home networking firm Enikia, is close to launching a service offering high-speed Internet access over power lines); Ephraim Schwartz, *Utilities Municipalities Partner to Build Fiber Links*, INFOWORLD.COM, January 29, 2000; COMM DAILY, at 5, March 14, 2000 (noting IBM's announced series of partnerships and technology initiatives aimed at bringing e-business applications to wireless devices); *Hughes to Invest \$1.4 Billion in Broadband Satellite Network*, INTERNETNEWS.COM, March 17, 1999.

expensive engineering project in residential communications since the cable TV industry started wiring neighborhoods in the late 1960s.”²⁷

For example, as the *Notice* acknowledges, companies like Bell Atlantic, SBC and PacBell have announced expenditures in the billions of dollars to increase their high bandwidth infrastructures.²⁸ Wireless providers, including Teligent and Winstar, are offering businesses a wide array of data and Internet services. Satellite providers, including Hughes and Lockheed Martin, also are jumping on the broadband bandwagon and investing large sums into the development of broadband satellite networks.²⁹ In the last year, there has been an undeniable and unprecedented amount of time, effort and money committed by dozens of companies to increase advanced telecommunications capacity deployment.³⁰ The Commission has predicted

²⁷ Seth Schiesel, *Broadband Internet: How Broadly? How Soon?*, N.Y. TIMES, January 17, 2000. Covad, a leading DSL provider, recently announced plans to expand its digital subscriber line services and now claims accessibility to 40 percent of homes and businesses in the United States. Covad added 49 metropolitan areas in 19 states to bring its network to 100 metropolitan areas around the country. See <http://www.internetnews.com/isp-news/article/0,1087,8_195211,00.html>.

²⁸ *Notice* at Appendix A, ¶ 6.

²⁹ Lockheed, TRW and Telecom Italia have announced the development of Astrolink global broadband satellite system, one of more than [ten] such systems licensed by the Commission. Sprint/MCI have begun investing in wireless cable and Hughes Electronics has announced a plan for the North American satellite network, which will offer high speed bandwidth for Internet access for its DirecTV and DirecPC services. In addition, Electric utilities such as the Northwest Iowa Power Cooperative are partnering with large telecommunications companies such as MCI Worldcom to buildout broadband infrastructure.

³⁰ See, e.g., <<http://www.ba.com/proactive/newsroom/release.vtml>> “Bell Atlantic and Metromedia Fiber Network Consummate Strategic Relationship,” Bell Atlantic Press Release, March 7, 2000 (stating that Bell Atlantic has invested approximately \$1.7 billion in Metromedia Fiber Network Inc. to enable MFN to accelerate its build-out of broadband local loop infrastructure in 67 metropolitan areas in the United States and abroad, and allow Bell Atlantic to

continued...

that the number of households with access to broadband services will more than double by the end of 2000 and quintuple by 2002.³¹ With respect to the nonprofit sector, the cable industry alone is currently providing high-speed Internet access to more than 5,700 schools and public libraries nationwide. This number has more than doubled from the number of schools and libraries that the cable industry had hooked up last year.³²

Compared to the deployment of other single-service networks, including electric, cellular and wireline telephone, the deployment of broadband infrastructure is not only timely and reasonable, it is occurring at an exponential pace. It took almost 30 years for the telephone network to grow from the first inter-city telephone line between Boston and Lowell in 1879 to the initiation of the intertwined Bell System in 1908.³³ Similarly, cellular service was first offered to the general public in late 1983. Six years later, in 1989, only two million customers were using cellular service regularly via portable units.³⁴ As of 1996 – a full thirteen years after cellular service was introduced to the public – most *but not all* cellular licensees had built out

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provide seamless end-to-end broadband services domestically and to certain international locations); COMM DAILY, at 8, March 10, 2000 (stating SBC DSL subscriber lines are expected to reach one million by year end); <<http://www.nextel.com/cgi-bin/pressRelease.cgi>> “Nextel Mobilizes the Internet with a Suite of Applications for Businesses, News Release, February 23, 2000; *Hughs to Invest \$1.4 Billion in Broadband Satellite Network*, INTERNETNEWS.COM, March 17, 1999.

³¹ The CECA Broadband Access Summit, Prepared by the Consumer Council of America, at 2 (March 2000) (citing “Technology and Trends, FCC News Release, February 5, 1999).

³² CABLEDAY, Friday, January 14, 2000.

³³ “One Policy, One System, Universal Service.” See <<http://www.webconsult.com/1900.html>>.

³⁴ John W. Berresford, *The Impact of Law and Regulation on Technology: The Case History of Cellular Radio*, 44 BUS. LAW. 721 (May 1989).

their networks to serve most of their covered population.³⁵ By contrast, the broadband industry has started from ground zero in 1997 and has invested tens of billions of dollars in infrastructure and network development to approach two million subscribers today.³⁶ It should be beyond dispute that the Commission is correct in its judgment that the marketplace is responding to consumer needs in a reasonable and timely fashion, without regulatory intervention.

B. Market-based Incentives for Broadband Are Aligned with Consumer Needs

As one observer has noted, “[t]hat the broadband project, despite fits and false starts, is now moving so quickly is a tribute to the power of competition. . . .”³⁷ While the Commission looks for ways to “best use the tools specified in Section 706 to accelerate deployment,” it must recognize that its commitment to “unregulation” of the Internet and broadband services has been a necessary pre-condition for today’s rapid deployment of advanced telecommunications capability.

In its initial *Section 706 Report*, the Commission did not foresee the consumer market for broadband access as becoming a monopoly or even a duopoly, and thus concluded that there was no predicate for any regulatory intervention.³⁸ The Commission noted that “it appears that a

³⁵ Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, *First Report and Order*, 11 FCC Rcd 18455 at ¶ 30 (1996).

³⁶ See “The Mind’s Eye,” Remarks as Prepared for Delivery by Deborah A. Lathen, Chief, Cable Services Bureau, November 9, 1999; see also “Broadband Today,” A Staff Report to Chairman William E. Kennard, from Deborah A. Lathen, Chief of the Cable Services Bureau, at 23-30. (October 1999) .

³⁷ Seth Schiesel, *Broadband Internet: How Broadly? How Soon?*, N.Y. TIMES, January 17, 2000.

³⁸ *Section 706 Report*, 14 FCC Rcd at 2451-52.

substantial investment in broadband technologies is taking place across virtually all segments of the communications industry.” Further, the Commission stated that it was “premature to conclude that there will not be competition in the consumer market for broadband. The preconditions for monopoly are absent. Today, no competitor has a large embedded base of paying residential consumers . . . [and] we see the potential for this market to accommodate different technologies such as DSL, cable modems, utility fiber to the home, satellite and terrestrial radio.”³⁹

The beneficial effect of the de-regulatory approach to advanced telecommunications capability also has been recognized by Chairman Kennard. In a recent speech on the issue of access to the broadband network, the Chairman stated that: “[u]nless a compelling case can be made for government action – a failure of the market to maximize consumer welfare – then we should give the marketplace a chance to work. That’s particularly true with the deployment of new technologies.”⁴⁰ Again, in a speech addressing the issue of competition and regulation, the Chairman noted his desire to

create an oasis from regulation in the broadband world, so that any company, using any technology, will have incentives to deploy broadband in an unregulated or significantly deregulated environment. And that does not mean just cable companies. We must have fast and ubiquitous deployment of broadband services and that will only happen if every sector of the industry has incentives to provide it: wireline, wireless and cable.⁴¹

³⁹ *Id.* at 2423.

⁴⁰ “Broadband Cable, Next Steps,” an Address by Chairman William E. Kennard before the Western Show, December 16, 1999.

⁴¹ “Competition And Deregulation: Striking The Right Balance,” Remarks of William E. Kennard to the United States Telecom Association Annual Convention, October 18, 1999.

To encourage continued investments in broadband infrastructure, the Commission must continue to permit market forces to work without interference from inappropriate regulation. This non-interventionist approach has proven highly successful and must continue for the broadband marketplace to flourish. In particular, the Commission should resist calls to “level the broadband playing field” by imposing legacy Title II regulatory obligations on cable operators.⁴² Instead, any steps taken in the name of rationalizing our legacy monopoly-based regulatory structure should involve the removal of rules that have outlived their purposes and are unnecessary in view of increased competition.⁴³

⁴² No better statement of “what not to do” to promote competition exists than that authored by John W. Berresford, *The Future of the FCC: Promote Competition, Then Relax*,” Administrative Law Review, Vol. 50, No. 4, Fall 1998 at 748 (emphasis original, footnote omitted)

The playing field is never even to begin with, and bringing in a lot of regulatory landscape architects and earth-moving equipment will in most cases only postpone the emerging competition and benefits it brings to consumers. Once the regulator starts leveling the playing field to be “fair” to one competitor, all other competitors will find something unfair to *them* and want *their* valleys to be filled and their mountains and hills to be brought low. The process can become an endless one and if carried to its logical conclusion, transforms the regulator into a cartel manager. This guarantees jobs for regulators, lawyers, and lobbyists, and creates oligopoly for the so-called competitors, but it may do little for consumers.

⁴³ See Jason Oxman, Counsel for Advanced Communications Office of Plans and Policy, *The FCC and the Unregulation of the Internet*, OPP Working Paper No. 31, at 66, July 1999.

IV. CONCLUSION

The “infant” broadband marketplace today may be a few steps closer to toddlerhood, but it is a far cry from adolescence, let alone adulthood. The Commission’s “hands off” response to calls for regulatory intervention was appropriate last year, and remains appropriate today. As noted above, the capital and labor-intensive investment that Cox has made over the past four years will continue in the next four years. This intensive effort to ensure that *all* homes passed within Cox’s service areas are able to receive high-quality video, voice and data communications capabilities and services is bearing fruit. Many other network and service providers all across the country are rushing to achieve similar results. The continued success of these efforts is a testament to the wisdom of the Commission’s decision last year to refrain from intervening and let the competitive marketplace develop and deliver broadband capabilities to all Americans. Cox urges the Commission to stay its course.

Respectfully Submitted,

COX COMMUNICATIONS, INC.



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March 20, 2000

Certificate of Service

I hereby certify that on this 20th day of March, 2000, I caused copies of Comments of Cox Communications to be served upon the parties listed below via hand delivery:

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Commissioner Gloria Tristani
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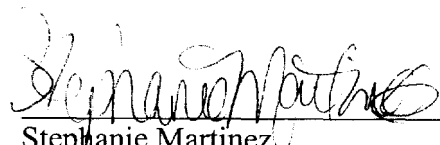
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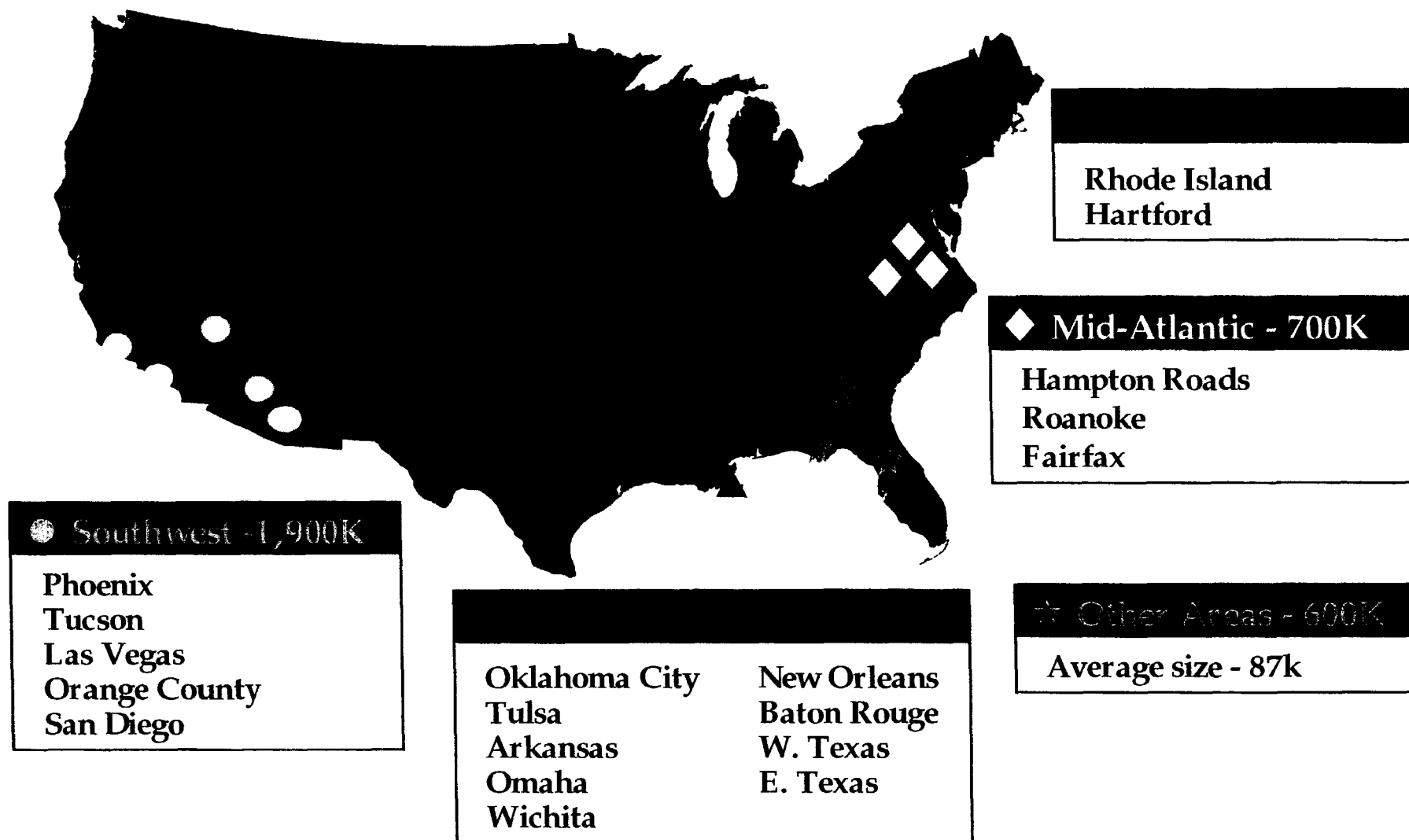
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New England	430k
Hampton Roads	409k
Las Vegas	334k
New Orleans	264k
Fairfax County	261k
Oklahoma City	240k
Orange County	230k
Omaha	172k
Tulsa	160k
Fort Walton/Pensacola	157k
Baton Rouge	156k
Wichita	150k
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